Lomatium tuberosum Hoover

Hoover's desert-parsley

Apiaceae (Parsley Family)

Status: State Sensitive, USFWS Species of Concern
Rank: G2G3S2S3

General Description: Herbaceous perennial that grows from a tuber-like root. The leaves are all basal, and usually only the finely dissected, grayish-green, glabrous, glaucous blade is visible above the surface of the talus. Basal, bladeless sheaths are present and purplish in color. The flowers are typically light purple, but are sometimes yellow, and occur in umbels atop the leafless flowering stalk. The fruits are elliptical in outline and have narrow, thickened wings.

Identification Tips: *L. columbianum* also occurs in the arid Columbia Basin habitat of *L. tuberosum*. Features that distinguish *L. tuberosum* from *L. columbianum* include the following: the former species' smaller bladeless sheaths; the absence of conspicuous old leaf blades; ultimate leaf divisions that are 3-16 x 0.8 mm and narrowly linear rather than 10-20 x 0.5-1.5 mm and linear; anthers that are yellow rather than purple. The taxonomic keys in Hitchcock et al. (1961) and Hitchcock and Cronquist (1973) contain errors in distinguishing *L. tuberosum, L. minus,* and *L. columbianum*, leading to the misidentification of some specimens of *L. columbianum* as *L. tuberosum* (Mastrogiuseppe et al. 1985).

Phenology: Flowers from March to early April. Fruits become mature some time in May, and as the fruits mature and disperse, the leaves turn a ruddy gray color and wither.

Range: Endemic to Washington; known only from Yakima County and adjacent portions of Benton, Grant, and Kittitas counties. Occurs in the Columbia Basin physiographic province.

Habitat: Loose talus most typically on east to north facing slopes (45-60 degrees) within the big sagebrush/bluebunch wheatgrass vegetation zone of Daubenmire (1970). The species is also known from drainage channels of open ridgetops and talus on south to southwest facing slopes in the western portion of its distribution. Elevation: 600-2300 feet. There are often few associated species, but they include Hooker's onion (*Allium acuminatum*),

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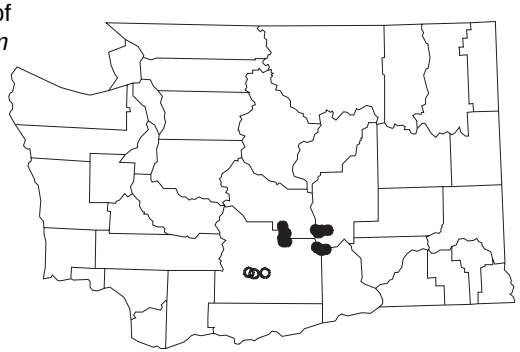
Known distribution of *Lomatium tuberosum* in Washington



● Current (1980+)
○ Historic (older than 1980)

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John Gamon

Katy Beck

1997 Produced as part of a cooperative project between the Washington Department of Natural Resources, Washington Natural Heritage Program, and the U.S.D.I. Bureau of Land Management.
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Habitat (continued)**:** upland larkspur (*Delphinium nuttallianum*), snow buckwheat (*Eriogonum niveum*), cleavers (*Galium aparine*), big bluegrass (*Poa secunda*), and cheat grass (*Bromus tectorum*).

Ecology: The environment of this species is quite harsh, being hot, dry and rocky. In addition, the basaltic talus habitat tends to be loose and unstable. These factors combine to eliminate most of the competition from other vegetation.

State Status Comments: The limited range and relatively small number of known occurrences (about 20) are the primary factors contributing to the species' status.

Inventory Needs: Inventory efforts to-date have focused primarily on the area bounded by the Yakima River Canyon, the Columbia River, I-90 and the southern boundary of the Yakima Training Center. Additional inventory is needed to clearly define the range of the species. Better documentation of population size and trend is also needed.

Threats and Management Concerns: Threats include gravel extraction, road construction, military training activities, and grazing. Herbicide drift from nearby agricultural lands and noxious weed establishment may also pose threats.

References:

Gill, S.J. and J.D. Mastrogiuseppe. 1983. *Lomatium tuberosum* Hoover (Apiaceae). Madrono 30: 259.

Hitchcock, C.L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1961. *Vascular Plants of the Pacific Northwest, Part 3: Saxifragaceae to Ericaceae*. University of Washington Press, Seattle. 614 pp.

Mastrogiuseppe, J.D., S.J. Gill, K.S. Simmons and G.K. Brown. 1985. Morphologic and cytotaxonomic evaluation of *Lomatium tuberosum* (Apiaceae). Brittonia 37(3): 252-260.

Schlessman, M.A. 1984. Systematics of tuberous Lomatiums (Umbelliferae). Systematic Botany Monographs. Volume 4. 55 pages.

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